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DECLARATION AND POWER OF ATTORNEY UNDER 35 USC § 371(c)(4) FOR PCT APPLICATION FOR UNITED STATES PATENT

As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated below under my name;

I verily believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought, namely the invention entitled:

A LIQUID CRYSTAL ALIGNMENT AGENT AND LIQUID CRYSTAL DEVICE USING THE LIQUID

CRYSTAL ALIGNMENT AND METHOD FOR ALIGNMENT OF LIQUID CRYSTAL MOLECULES

described and claimed in international application number PCT/JP99/04575 filed on August 25, 1999

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations §1.56.

Under Title 35, U.S. Code §119, the priority benefits of the following foreign application(s) filed by me or my legal representative or assigns within one year prior to my international application are hereby claimed:

Japanese Patent Application No. Hei 10-240491 filed on August 26, 1998

The following application(s) for patent or inventor's certificate on this invention were filed in countries foreign to the United States of America either (a) more than one year prior to my international application, or (b) before the filing date of the above-named foreign priority application(s)

I hereby appoint the following as my attorneys of record with full power of substitution and revocation to prosecute this application and to transact all business in the Patent Office:

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James A. Oliff, Reg.No.27,075; William P. Berridge, Reg.No.30.024; Kirk M. Hudson, Reg.No.27,562; Thomas J. Pardini, Reg.No.30,411; Edward P. Walker, Reg.No.31,450; Robert A. Miller, Reg.No.32,771; Mario A. Costantino, Reg.No.33,565; and Stephen J. Roe, Reg.No.34,463.

ALL CORRESPONDENCE IN CONNECTION WITH THIS APPLICATION SHOULD BE SENT TO OLIFF & BERRIDGE, PLC, P.O. BOX 19928, ALEXANDRIA, VIRGINIA, 22320, TELEPHONE (703) 836-6400.

I hereby declare that I have reviewed and understand the contents of this Declaration, and that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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of Sole or Firs	st Inventor	<u>Yukihiro</u>			MIYAMA
		Given Name	Jukihiro	Miyama Middle Initial	Family Name
**Inventor's	Signature		Jukenno	11 copura	
** Date of Sig	_	February		16	2001
2000 01 0-2		Month		Day	Year (TQ)
Residence	Funabash	ni-shi		<u>Chiba</u>	Japan OF X
1000000	City			State of Province	Country
Citizenship	Japa	anese			
Post Office Address		c/o Nissan Chemical Industries, Ltd. Central Research Institute, 722-1, Tsuboi-cho,			
(Insert complete mailing address, including country)		Funabashi-shi, Chiba 274-8507, Japan			
		A WHITE SILL, CALLED A	TAXXII XXX		
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^{*}Note to Inventor: Please sign name on line 2 exactly as it appears line 1 and insert the actual date of signing on line 3.





PAGE 2 OF U.S.A. DECLARATION FORM (Discard this page in a sole inventor application)

	Typewritten Full Name		
	of Second Joint		
	Inventor (if any) Takayasu		NIHIRA
) 00	Given Name	Middle Initial	Family Name
7 W	**Inventor's Signature	Jakayasu Nihira	
	*Date of Signature Februa	ry 16	2001
	Month	Day	Year
	Residence <u>Funabashi-shi</u>	Chiba	Japan UPX
	City	State or Province	Country
	Citizenship Japanese		
		ssan Chemical Industries, Ltd. Central Research Institute, 722-1	Tsuboi-cho,
	(Insert completing mailing Funal	ashi-shi, Chiba 274-8507, Japan	
	address, including country)		
	, 0		
	Typewritten Full Name		
	of Third Joint		
m	Inventor (if any) Hideyuki		ENDO
W	Given Name	/ Maddle Initial	Family Name
<u>_</u>	7	Lideraki Endo	
o	**Inventor's Signature *Date of Signature Februar		2001
ų.	Month	Day	Year
n		Chiba	Japan JW
	Residence <u>Funabashi-shi</u> City	State or Province	Country
	Citizenship Japanese		
-	Post Office Address c/o Ni	ssan Chemical Industries, Ltd. Central Research Institute, 722-1	, Tsuboi-cho,
		pashi-shi, Chiba 274-8507, Japan	
i -	address, including country)		
	address, including country/		
	Typewritten Full Name		
Ü	of Fourth Joint		
u.	Inventor (if any) Hirovoshi		FUKURO
1700	Given Name	a Middle Initial	Family Name
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.≠ :=,	**Inventor's Signature	rogorn fruku	2001
	*Date of Signature Februa Month	Day	Year
		-	Japan JPX
	Residence <u>Funabashi-shi</u>	Chiba State or Province	Country
	City Citizenship Japanese	State of 1 toyunce	
	Post Office Address c/o Ni	ssan Chemical Industries, Ltd. Central Research Institute, 722-1	Tsuboi-cho.
		pashi-shi, Chiba 274-8507, Japan	
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	address, including country)		

Note to Inventor. Please sign name on line 2 exactly as it appears in line 1 and insert the actual date of signing on line 3.

This form may be executed only when attached to the first page of the Declaration and Power of Attorney of the application to which it pertains.



address, including country)





PAGE 3 OF U.S.A. DECLARATION FORM (Discard this page in a sole inventor application)

Typewritten Full Name of Fifth Joint Inventor (if any) Middle Initial Given Name Family Name **Inventor's Signature 2001 *Date of Signature Day Year Month <u>Japan</u> Kanagawa Residence <u>Sagamihara-shi</u> State or Province Country Citizenship Japanese 5-2-8-101, Minamidai, Sagamihara-shi, Kanagawa 228-0814, Japan Post Office Address (Insert completing mailing address, including country) Typewritten Full Name of Sixth Joint <u>AKIYAMA</u> Inventor (if any) Eiich Middle Initial **Family Name** Given Name **Inventor's Signature oorswar dwaroo 2001 *Date of Signature February Year Day Month Japan (Residence Kanagawa <u>Yamato-shi</u> State or Province Country Citizenship Japanese 2786-4-211, Shimotsuruma, Yamato-shi, Kanagawa 242-0001, Japan Post Office Address (Insert completing mailing address, including country) Typewritten Full Name of Seventh Joint NEMOTO Inventor (if any)_ <u>Nobukatsu</u> Middle Initial Family Name Given Name **Inventor's Signature 2001 February *Date of Signature Day Month Tokyo <u>Japan</u> Residence <u>Machida-shi</u> State or Province Country Citizenship 1801, Kohgasaka, Machida-shi, Tokyo 194-0014, Japan Post Office Address (Insert completing mailing

Note to Inventor. Please sign name on line 2 exactly as it appears in line 1 and insert the actual date of signing on line 3.

This form may be executed only when attached to the first page of the Declaration and Power of Attorney of the application to which it pertains.

ASSIGNMENT

(1-8) Insert Name(s)	(1) Yukihiro MTY	AMA	(5)		
of Inventor(s)	(2) Takayasu NII				
.,	(3) Hideyuki ENI			and	
			(8)		
			sum of one dollar (\$1.00		
			paid to each of the un		
	undersigned agrees to assign, and hereby does assign, transfer and set over to				
(9) Insert Name of Assignee	(9)-1 Nissan Cher	mical Industries	Ltd.		
(0) 1110010 1111111111111111111111111111	(9)-2 Sagami Che				
(10) Insert Address of			ome, Chiyoda-ku, Tokyo 101-	-0054, Japan	
Assignee	(10)-2 4-1, Nishi-	Ohnuma 4-chom	ie, Sagamihara-shi, Kanagav	ya 229-0012, Japan	
	legal representati America as define patent including substitute, and re	ives, the entire : ed in 35 U.S.C. § any and all pro- issue application	gnee) and Assignee's heirs, sucright, title and interest for the 100, in the invention, and invisional, non-provisional, divisional, and all Letters Patent, extends by the granted on the invention by	he United States of all applications for sional, continuation, ensions, reissues and	
(11) Insert Identification,	(11)				
such as Title, Case Number					
or Foreign Application					
Number	(Attorney Do	ocket No. 108669))	
	for which the und	ersigned has (hav	ve) executed an application for	patent in the United	
	States of America				
(12) Insert Date of Signing of	(12) on <u>Febru</u>	ary 16, 200	1		
Application					
(13) Alternative Identification			ber		
for filed applications 1) Each undersigned agree.	nied <u>Februa</u>	ry 21, 2001	onnection with any application	and any continuing.	
divisional or reissue application assignments in connection with a 2) Each undersigned agree declared concerning any applica- thereon, for the invention, and	such applications ar es to execute all pa ation or continuati	nd patents as the opers necessary i on or division th	Assignee may deem necessary n connection with any interfe tereof, or any patent or reisso	: rence which may be ue application based	
forward with such interference.					
3) Each undersigned agree	s to execute all par	ers and documen	ats and perform any act which	may be necessary in	
connection with claims or provi	sions of the Intern	ational Conventi	on for Protection of Industrial	Property or simuar	
agreements.	a to monform all offi	mativo acte whi	ch may be necessary to obtain,	maintain or confirm	
 4) Each undersigned agree by reissue or reexamination a gr 	s to perform an am	rmative acts will ed States patent t	o the Assignee.	mullival of out	
5) Each undersigned authorized	orizes and requests	the Director of l	Patents to issue any and all L	etters Patents of the	
United States resulting from sa	id application(s) to	the said Assigne	e, as Assignee of the entire int	erest, and covenants	
that he has full right to convey	the entire interest	herein assigned,	and that he has not executed,	and will not execute,	
any agreements in conflict here		at this assignme	nt is binding on him and his r	ieirs, successors, and	
assigns and legal representative	S. manta tha firm o	FOLIER & BERI	RIDGE, PLC the power of inser	rt on this assignment	
any further identification that	may be necessary	or desirable in o	der to comply with the rules	of the United States	
Patent and Trademark Office for	r recordation of this	document.			
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Data February 16, 2001 In	ventor Signature	jukin	no myama	(SEAL)	
Dota February 16, 2001 In	ventor Signature	. lakayase	MAGA	(SEAL)	
p_{obs} February 16, 2001 p_{obs}	ventor Signature	Llidery	ke endo.	(SEAL)	
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the U.S.A. If neither, then it should	d be signed before a	t least two witne	sses who also sign here:		
DateW	itness				
DateW	itness				

ASSIGNMENT

•	. • , :				
(1-8) Insert Name(s)	(1) Yu NAGASE		(5)		
of Inventor(s)	(2) Eiichi AKIYA	AMA	(6)		
,		VEMOTO			
	(4)		(8)		
	In consi	deration of the	sum of one dollar (\$1	.00) and oth	ner good
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(9) Insert Name of Assignee	(9)-1 Nissan Ch	emical Industries	Ltd.		
.,	(9)-2 Sagami Ch	nemical Research	Center 🦈	·	<u> </u>
(10) Insert Address of	(10)-1 7-1, Kand	lanishiki-cho 3-ch	ome, Chiyoda-ku, Tokyo	101-0054, Jap	an
Assignee			e, Sagamihara-shi, Kana		
•			100		
•	(hereinafter desi	ignated as the Assi	gnee) and Assignee's heirs,	successors, as	signs and
	legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. § 100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation,				
	substitute, and reissue application(s), and all Letters Patent, extensions, reissues and				
			be granted on the inventi	on known as	
(11) Insert Identification,	(11)	<u> </u>		· · · · · · · · · · · · · · · · · · ·	
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or Foreign Application		2 1 1 N			
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		aersigned has (hav a on even date here	e) executed an application	ior patent in t	ne Omtec
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Application (13) Alternative Identification	(13) IIS applie	ation Serial Numb	oer		
for filed applications		uary 21, 2001	Jei		
			onnection with any applica	tion and any co	ontinuing
divisional or reissue application					
assignments in connection with					
Each undersigned agre	es to execute all p	oapers necessary i	n connection with any inte	erference whic	ch may be
declared concerning any applic	ation or continuat	tion or division th	ereof, or any patent or re	issue applicat	tion based
thereon, for the invention, and	to cooperate with	the Assignee in ev	ery way possible in obtain	ning evidence	and going
forward with such interference.		, ,			
3) Each undersigned agree	es to execute all pa	pers and documen	ts and perform any act wh	ich may be ne	or similar
connection with claims or provi	isions of the inter	national Convention	on for Protection of Indust	riai Froperty	or simila.
agreements. 4) Each undersigned agree	as to parform all af	firmative acts which	h may be necessary to obt	ain, maintain (or confirm
by reissue or reexamination a gr				, <u> </u>	
5) Each undersigned auth	orizes and request	ts the Director of F	atents to issue any and a	ll Letters Pate	nts of the
United States resulting from sa	aid application(s) to	o the said Assignee	, as Assignee of the entire	interest, and	covenant
that he has full right to convey	the entire interest	herein assigned, a	ind that he has not execut	ed, and will no	ot execute
any agreements in conflict here	with, and agrees t	hat this assignmen	nt is binding on him and h	is heirs, succe	ssors, and
assigns and legal representative	es.	COLUMN O DEDD	IDOR DIGHT	4h ia a	
6) Each undersigned here	oy grants the firm	of OLIFF & BERR	IDGE, PLC the power of in	isert on this as	tod State
any further identification that Patent and Trademark Office fo	may be necessary	or desirable in or	ter to comply with the ru	les of the Offi	teu State
In witness whereof, executed	r recordation of the	od on the date(a) o	onosite the undersigned i	name(s).	
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This assignment should prefera	hly he signed hefor	e: (a) a Notary Pul	olic if within the U.S.A. (b)	a U.S. Consul	l if outsid
the U.S.A. If neither, then it shoul	d be signed before	at least two witnes	ses who also sign here:		
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